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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/410,606	10/01/1999	DAVID ALAN EDWARDS	99-TK-239	7114

7590 12/16/2002

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EXAMINER

MASKULINSKI, MICHAEL C

ART UNIT

PAPER NUMBER

2184

DATE MAILED: 12/16/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Interview Summary</b>	<b>Application No.</b> 09/410,606	<b>Applicant(s)</b> EDWARDS ET AL.	
	<b>Examiner</b> Michael C Maskulinski	<b>Art Unit</b> 2184	

All participants (applicant, applicant's representative, PTO personnel):

- (1) Michael C Maskulinski. (3) \_\_\_\_\_.
- (2) Edward J. Russavage. (4) \_\_\_\_\_.

Date of Interview: 04 December 2002.

Type: a) ☒ Telephonic b) ☐ Video Conference  
c) ☐ Personal [copy given to: 1) ☐ applicant 2) ☐ applicant's representative]

Exhibit shown or demonstration conducted: d) ☐ Yes e) ☒ No.  
If Yes, brief description: \_\_\_\_\_.

Claim(s) discussed: 1, 12 and 23.

Identification of prior art discussed: Razban and Levine et al..

Agreement with respect to the claims f) ☒ was reached. g) ☐ was not reached. h) ☐ N/A.

Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: See Continuation Sheet.

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims allowable, if available, must be attached. Also, where no copy of the amendments that would render the claims allowable is available, a summary thereof must be attached.)

i) ☒ It is not necessary for applicant to provide a separate record of the substance of the interview (if box is checked).

Unless the paragraph above has been checked, THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN ONE MONTH FROM THIS INTERVIEW DATE TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached sheet.

Examiner Note: You must sign this form unless it is an Attachment to a signed Office action.

  
Examiner's signature, if required

## Summary of Record of Interview Requirements

### Manual of Patent Examining Procedure (MPEP), Section 713.04, Substance of Interview Must be Made of Record

A complete written statement as to the substance of any face-to-face, video conference, or telephone interview with regard to an application must be made of record in the application whether or not an agreement with the examiner was reached at the interview.

### Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews

#### Paragraph (b)

In every instance where reconsideration is requested in view of an interview with an examiner, a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the applicant. An interview does not remove the necessity for reply to Office action as specified in §§ 1.111, 1.135. (35 U.S.C. 132)

#### 37 CFR §1.2 Business to be transacted in writing.

All business with the Patent or Trademark Office should be transacted in writing. The personal attendance of applicants or their attorneys or agents at the Patent and Trademark Office is unnecessary. The action of the Patent and Trademark Office will be based exclusively on the written record in the Office. No attention will be paid to any alleged oral promise, stipulation, or understanding in relation to which there is disagreement or doubt.

The action of the Patent and Trademark Office cannot be based exclusively on the written record in the Office if that record is itself incomplete through the failure to record the substance of interviews.

It is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file, unless the examiner indicates he or she will do so. It is the examiner's responsibility to see that such a record is made and to correct material inaccuracies which bear directly on the question of patentability.

Examiners must complete an Interview Summary Form for each interview held where a matter of substance has been discussed during the interview by checking the appropriate boxes and filling in the blanks. Discussions regarding only procedural matters, directed solely to restriction requirements for which interview recordation is otherwise provided for in Section 812.01 of the Manual of Patent Examining Procedure, or pointing out typographical errors or unreadable script in Office actions or the like, are excluded from the interview recordation procedures below. Where the substance of an interview is completely recorded in an Examiners Amendment, no separate Interview Summary Record is required.

The Interview Summary Form shall be given an appropriate Paper No., placed in the right hand portion of the file, and listed on the "Contents" section of the file wrapper. In a personal interview, a duplicate of the Form is given to the applicant (or attorney or agent) at the conclusion of the interview. In the case of a telephone or video-conference interview, the copy is mailed to the applicant's correspondence address either with or prior to the next official communication. If additional correspondence from the examiner is not likely before an allowance or if other circumstances dictate, the Form should be mailed promptly after the interview rather than with the next official communication.

The Form provides for recordation of the following information:

- Application Number (Series Code and Serial Number)
- Name of applicant
- Name of examiner
- Date of interview
- Type of interview (telephonic, video-conference, or personal)
- Name of participant(s) (applicant, attorney or agent, examiner, other PTO personnel, etc.)
- An indication whether or not an exhibit was shown or a demonstration conducted
- An identification of the specific prior art discussed
- An indication whether an agreement was reached and if so, a description of the general nature of the agreement (may be by attachment of a copy of amendments or claims agreed as being allowable). Note: Agreement as to allowability is tentative and does not restrict further action by the examiner to the contrary.
- The signature of the examiner who conducted the interview (if Form is not an attachment to a signed Office action)

It is desirable that the examiner orally remind the applicant of his or her obligation to record the substance of the interview of each case unless both applicant and examiner agree that the examiner will record same. Where the examiner agrees to record the substance of the interview, or when it is adequately recorded on the Form or in an attachment to the Form, the examiner should check the appropriate box at the bottom of the Form which informs the applicant that the submission of a separate record of the substance of the interview as a supplement to the Form is not required.

It should be noted, however, that the Interview Summary Form will not normally be considered a complete and proper recordation of the interview unless it includes, or is supplemented by the applicant or the examiner to include, all of the applicable items required below concerning the substance of the interview.

A complete and proper recordation of the substance of any interview should include at least the following applicable items:

- 1) A brief description of the nature of any exhibit shown or any demonstration conducted,
- 2) an identification of the claims discussed,
- 3) an identification of the specific prior art discussed,
- 4) an identification of the principal proposed amendments of a substantive nature discussed, unless these are already described on the Interview Summary Form completed by the Examiner,
- 5) a brief identification of the general thrust of the principal arguments presented to the examiner,  
(The identification of arguments need not be lengthy or elaborate. A verbatim or highly detailed description of the arguments is not required. The identification of the arguments is sufficient if the general nature or thrust of the principal arguments made to the examiner can be understood in the context of the application file. Of course, the applicant may desire to emphasize and fully describe those arguments which he or she feels were or might be persuasive to the examiner.)
- 6) a general indication of any other pertinent matters discussed, and
- 7) if appropriate, the general results or outcome of the interview unless already described in the Interview Summary Form completed by the examiner.

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### Examiner to Check for Accuracy

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Continuation of Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: The main focus of the interview was the discussion of how the Applicant's invention, a debug circuit that obtained the program counter from the processor, was on the same integrated circuit as the processor and what the references of Razban and Levine et al. teach. The Applicant's attorney pointed out that the advantages of having the Applicant's invention on an integrated circuit was that the transfers between the processor and debug circuit are real time and that there isn't the need to worry about the problems of serial transfer associated with having the debug circuit off chip. The Examiner felt that the combination of Razban and Levine et al. taught this as it is currently claimed. In response the Applicant's attorney decided to change the claim language to make it more clear and will fax a draft to the Examiner.

<b>Interview Summary</b>	Application No. 09/410,606	Applicant(s) EDWARDS ET AL.	
	Examiner Michael C Maskulinski	Art Unit 2184	

All participants (applicant, applicant's representative, PTO personnel):

(1) Michael C Maskulinski. (3)\_\_\_\_\_.

(2) Edward J. Russavage. (4)\_\_\_\_\_.

Date of Interview: 11 December 2002.

Type: a) ☒ Telephonic b) ☐ Video Conference  
c) ☐ Personal [copy given to: 1) ☐ applicant 2) ☐ applicant's representative]

Exhibit shown or demonstration conducted: d) ☐ Yes e) ☒ No.

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Continuation of Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: In response to the last interview on December 4, 2002, the Applicant's Attorney submitted proposed amendments, which are attached to this paper. Although the proposed amendments made the claims more clear the Examiner still felt that the prior art still applied to the claims. The Examiner also suggested placing the limitation of "shadowing the program counter of the processor in real time," (this limitation is supported in the specification on pages 2-3) to better distinguish the claims over the prior art. The Examiner did note that the suggested limitation may require a further search. The Applicant's Attorney appreciated the suggestion and told the Examiner that he would discuss it with the client..

**PROPOSED AMENDED CLAIMS  
(FOR DISCUSSION PURPOSES ONLY)**

1. (Amended) A microcomputer comprising:
  - at least one processor;
  - a debug circuit, wherein the processor and debug circuit are implemented on a same integrated circuit;
  - a system bus coupling the processor and debug circuit; and
  - a communication link coupling the processor and debug circuit on the same integrated circuit, wherein the processor is configured to transmit to the debug circuit through the communication link a program counter value indicating the program counter of the processor.
  
12. (Amended) A microcomputer comprising:
  - at least one processor;
  - a debug circuit, wherein the processor and debug circuit are implemented on a same integrated circuit;
  - a system bus coupling the processor and debug circuit; and
  - means for transmitting to the debug circuit, within the same integrated circuit, a program counter value indicating the program counter of the processor.
  
23. (Amended) A method for transferring information between a processor and a debug circuit of a microcomputer, the processor and debug circuit being implemented on a same integrated circuit, the method comprising steps of:
  - transmitting, to the debug circuit on a communication link coupling the processor and the debug circuit on the same integrated circuit, a program counter value indicating the program counter of the processor.